

Remarks

The Office Action mailed April 15, 2008 has been carefully considered. Reconsideration and allowance of the subject application, as amended, are respectfully requested.

Claims 1, 3-7, 9-13, 15-16, and 18 are currently pending. Claims 1, 7, and 12 have been amended to clarify the claimed subject matter. Support for the within claim amendments may be found at, *inter alia*, page 7, line 21 to page 8, line 12 and page 9, line 10 to page 10, line 19 of the Specification.

In making the within claim amendments, Applicant is clarifying the claimed subject matter and is not acquiescing as to the validity and/or correctness of the rejections of the subject application and/or of the characterizations of the prior art in the Office Action. The within claim amendments are not intended to, and do not result in disclaimer, waiver, and/or estoppel vis-à-vis claim scope and/or equivalents.

In the Office Action, the Examiner has rejected claims 1, 3-5, 7, 9-10, 12, 13, 15, and 16 under 35 USC §103 as being unpatentable over Matsuo (U.S. Patent No. 6,600,824) in view of Birchfield et al. (U.S. Patent Publication No. 2002/0097885) in further view of Panasik et al. (U.S. Patent No. 6,778,674). The Examiner has also rejected claims 6, 11, and 18 under 35 USC §103 as being unpatentable over Matsuo (previously cited) in view of Birchfield et al. (previously cited), Panasik et al.

(previously cited) and Nordstrom et al. (U.S. Patent No. 5,058,419). Applicant respectfully submits that these rejections of the claims, as amended, cannot be maintained, and should be withdrawn.

All claim limitations must be considered material in judging the patentability of the claims against the prior art. MPEP §2143.03; *In re Hiraio*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976); *In re Wilson*, 424 F.2d 1382, 165 USPQ 494 (CCPA 1970). In determining the differences between the prior art and the claims, the question under 35 USC §103 is not whether the differences themselves would have been obvious, but whether the claimed combination of limitations, as a whole, would have been obvious. MPEP §2141.02; *In re Hiraio*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976). Rejections based on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with factual rationale to support a *prima facie* case of obviousness. In order for that reasoning and rationale to be proper, among other things, all of the claim limitations must be taught or suggested in the art relied upon by the Examiner. MPEP §2141 III; *KSR International v. Teleflex Inc.*, 550 U.S. \_\_\_, 82 USPQ2d 1385 (2007).

Matsuo discloses a microphone array system. Birchfield et al. discloses an acoustic source localization system and method. In rejecting the subject claims, the Examiner acknowledges that the combination of Matsuo and Birchfield et al. fails to disclose “multiple reflectors having acoustically reflective surfaces of an irregular shape

that provide additional phase variation, resulting in improved spatial distinction during analysis, said reflectors structured and arranged to reflect the acoustic waves in the direction of the first and second microphones.” Office Action, page 4. However, the Examiner cites Panasik et al. as providing these features by disclosing “reflectors having an irregular shape and providing additional phase variation (Figure 1a; column 3, lines 54-column 4, line 6); the ears read on multiple reflectors, the phase variation occurs due to the inherent difference in the arrival of sound at the ears which provides spatial distinction; the ears reflect the output of the speakers SP1 and SP2 in the direction of microphones M1, M2 [emphasis added].” Id.

Applicant respectfully submits that the Examiner’s above characterization of Panasik et al. is contrary to Panasik et al.’s express teachings. Notably, in the portion of Panasik et al. relied upon by the Examiner, Panasik et al. actually teaches:

Thus, looking to ear piece EP1 by way of example, it includes a speaker SP1, a microphone M1, and a short-distance transceiver TR1. Similarly, since the electronics in ear piece EP2 are preferably identical to ear piece EP1, then ear piece EP2 includes a speaker SP2, a microphone M2, and a short-distance transceiver TR2. **Each speaker SP1 and SP2 is oriented within ear pieces EP1 and EP2, respectively, so that sounds emitted by those speakers are directed into the ear canal of person P. Further in this regard, speakers SP1 and SP2 are preferably selected**

**of appropriate dimension, type, and electrical characteristic so as to fit comfortably within or near the ear canal.** . . . Each microphone M1 and M2 is oriented within ear pieces EP1 and EP2, respectively, **so that it receives sounds external from and proximate the ear canal of person P.** Further in this regard, microphones M1 and M2 are preferably selected of appropriate dimension, type, and electrical characteristic so as to fit comfortably near the ear canal **while being directed to receive sounds external from the ear canal.** (Panasik et al., column 3, line 52 to column 4, line 9).

These express teachings of Panasik et al. are in stark contrast to the limitations of the claims, as amended. For example, independent method claim 1, as amended, recites:

A sound location detecting system, comprising:

a first microphone located at a first location to detect acoustic waves at the first location;

a second microphone located at a second location to detect the acoustic waves at the second location;

multiple reflectors having acoustically reflective surfaces of an irregular shape that provide additional phase variation, resulting in improved spatial distinction during analysis, said reflectors structured and arranged to reflect the acoustic waves in a direction such that the acoustic waves contact and are detected by both the first microphone and the second microphone;

an acoustic analysis device to detect and analyze the acoustic waves; and

a processing device to determine a spatial location of a source of the acoustic waves using the Generalized Cross Correlation PHase Transform and in response to the spatial location of the source to at least one of delay an output of the first or second microphone, or selectively disable the first or second microphone. (Independent claim 1, as amended).

All of the other currently pending independent claims, as amended, contain the above underlined limitations of claim 1, as amended, or similar limitations. Therefore, all of the currently pending claims, as amended, contain the above underlined limitations of claim 1, as amended, or similar limitations, either directly or by

depending from one of the independent claims, as amended. 35 USC §112, fourth paragraph.

Suffice it to note that Nordstrom et al. also fails to disclose or suggest the above features of the claims, as amended, that are nowhere disclosed or suggested in the combination of Matsuo, Birchfield et al., and Panasik et al. relied upon by the Examiner. Accordingly, since these features of the claimed invention are nowhere disclosed or suggested in any of the references relied upon by the Examiner, it is respectfully submitted that the references, whether taken singly or in any combination, would not anticipate or render obvious the claimed invention. Therefore, it is respectfully submitted that the Examiner's rejections of the claims, as amended, under 35 USC §103 as being unpatentable over combinations of Matsuo, Birchfield et al., Panasik et al., and Nordstrom et al. cannot be maintained, and should be withdrawn.

In the event that the Examiner believes that a telephone interview would advance the prosecution of this application, the Examiner is invited to call the undersigned attorney to initiate an interview.

In the event that any fees are due or payable in connection with this submission or in this application (including any applicable extension of time for response fees) please charge them to Deposit Account No. 50-4238. Likewise, please credit any overcharges to Deposit Account No. 50-4238.

Respectfully submitted,

Dated: June 11, 2008

/Christopher K. Gagne, Reg. No. 36,142/  
Christopher K. Gagne  
Attorney For Assignee  
Reg. No. 36,142  
Telephone No. (817) 281-7131